# Release notes for ENDF/B Development e-098_Cf_000 evaluation

October 13, 2016

- `fudge-4.0` Warnings:

  1. Mislabled emitted particle
     *Reading ENDF file: ../e-098_Cf_000.endf (Error # 0): ZAP messed up*

     `WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0`

  2. FIXME: Generic fudge unimplemented message
     *reaction label 1: e- + Cf + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

     `WARNING: Checking not yet implemented for energyLoss type data`

  3. FIXME: Generic fudge unimplemented message
     *reaction label 2: e- + Cf [excitation] / Product: e- (Error # 0): Generic unimp (c)*

     `WARNING: Checking not yet implemented for energyLoss type data`

- `fudge-4.0` Errors:

  1. Calculated and tabulated thresholds don't agree
     *reaction label 0: e- + Cf [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  2. Calculated and tabulated thresholds don't agree
     *reaction label 1: e- + Cf + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  3. Calculated and tabulated thresholds don't agree
     *reaction label 2: e- + Cf [excitation] / Cross section: (Error # 0): Threshold mismatch*

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  4. Calculated and tabulated thresholds don't agree
     *reaction label 3: e- + e- + Cf1s1/2 / Cross section: (Error # 0): Threshold mismatch*

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 135630. eV!`

  5. Calculated and tabulated thresholds don't agree
     *reaction label 4: e- + e- + Cf2s1/2 / Cross section: (Error # 0): Threshold mismatch*

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26047. eV!`

  6. Calculated and tabulated thresholds don't agree
     *reaction label 5: e- + e- + Cf2p1/2 / Cross section: (Error # 0): Threshold mismatch*

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25242. eV!`

  7. Calculated and tabulated thresholds don't agree
     *reaction label 6: e- + e- + Cf2p3/2 / Cross section: (Error # 0): Threshold mismatch*

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```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19929. eV!
```

8. Calculated and tabulated thresholds don't agree
   *reaction label 7: e- + e- + Cf3s1/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6732.5 eV!
```

9. Calculated and tabulated thresholds don't agree
   *reaction label 8: e- + e- + Cf3p1/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6350.9 eV!
```

10. Calculated and tabulated thresholds don't agree
    *reaction label 9: e- + e- + Cf3p3/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5103.8 eV!
```

11. Calculated and tabulated thresholds don't agree
    *reaction label 10: e- + e- + Cf3d3/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4492.2 eV!
```

12. Calculated and tabulated thresholds don't agree
    *reaction label 11: e- + e- + Cf3d5/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4248.1 eV!
```

13. Calculated and tabulated thresholds don't agree
    *reaction label 12: e- + e- + Cf4s1/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1788.7 eV!
```

14. Calculated and tabulated thresholds don't agree
    *reaction label 13: e- + e- + Cf4p1/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1609.9 eV!
```

15. Calculated and tabulated thresholds don't agree
    *reaction label 14: e- + e- + Cf4p3/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1272.9 eV!
```

16. Calculated and tabulated thresholds don't agree
    *reaction label 15: e- + e- + Cf4d3/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 986.74 eV!
```

17. Calculated and tabulated thresholds don't agree
    *reaction label 16: e- + e- + Cf4d5/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 926.2 eV!
```

18. Calculated and tabulated thresholds don't agree
    *reaction label 17: e- + e- + Cf4f5/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 547.73 eV!
```

19. Calculated and tabulated thresholds don't agree
    *reaction label 18: e- + e- + Cf4f7/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 530.98 eV!`

20. Calculated and tabulated thresholds don't agree
    *reaction label 19: e- + e- + Cf5s1/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 411.58 eV!`

21. Calculated and tabulated thresholds don't agree
    *reaction label 20: e- + e- + Cf5p1/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 337.87 eV!`

22. Calculated and tabulated thresholds don't agree
    *reaction label 21: e- + e- + Cf5p3/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 251.58 eV!`

23. Calculated and tabulated thresholds don't agree
    *reaction label 22: e- + e- + Cf5d3/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 142.47 eV!`

24. Calculated and tabulated thresholds don't agree
    *reaction label 23: e- + e- + Cf5d5/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 129.66 eV!`

25. Calculated and tabulated thresholds don't agree
    *reaction label 24: e- + e- + Cf5f5/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.78 eV!`

26. Calculated and tabulated thresholds don't agree
    *reaction label 25: e- + e- + Cf5f7/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.02 eV!`

27. Calculated and tabulated thresholds don't agree
    *reaction label 26: e- + e- + Cf6s1/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 60.88 eV!`

28. Calculated and tabulated thresholds don't agree
    *reaction label 27: e- + e- + Cf6p1/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.79 eV!`

29. Calculated and tabulated thresholds don't agree
    *reaction label 28: e- + e- + Cf6p3/2 / Cross section: (Error # 0): Threshold mismatch*

    `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.1 eV!`

30. Calculated and tabulated thresholds don't agree
    *reaction label 29: e- + e- + Cf7s1/2 / Cross section: (Error # 0): Threshold mismatch*

    ```
    WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.71 eV!
    ```

- `xsectplotter`   Warnings:

  1. Mislabled emitted particle
     *Error: ZAP messed up*

     ```
     stderr while processing crossSection

         WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
     ... [4 more lines]
     ```